

WE CLAIM:

1. A device for plumbing drainage systems said device comprising:  
5 a first tubing element having an attachment bell at one end and a first coupler portion at the other end;  
a second tubing element having an attachment bell at one end and a second coupler portion at the other end, wherein said first and second coupler portions are sized and shaped to be coupled together; and at least  
10 one of said first or second tubing element is a generally u-shaped section sized and shaped to trap water therein; and  
a connector to releasably couple said first and second coupler portions together, said connector including a sealing gasket, said sealing gasket, first coupling portion and second coupling portion being sized and  
15 shaped to permit said first and second coupler portions to be coupled together over a range of angles to form a leak resistant joint.
2. The device of claim 1 further including an angle stop, for limiting  
20 said range of angles, said stop being sized, shaped and positioned to ensure a downstream element of said first and second elements is angled to promote drainage.
- 25 3. The device of claims 1 or 2 wherein one of said first and second  
coupler portions comprises a bulb and the other of said first and second  
coupler portions comprises a socket sized so that said bulb may be closely received within said socket, said seal being sized and shaped to be inserted between said bulb and socket to form a liquid tight seal.
- 30 4. The device of claim 3 wherein said bulb includes a part spherical outer surface.

- Sub A4*
5. The device of claim 4 wherein said coupling portion defines  
a tubular section for the passage of waste therethrough and said part  
spherical outer surface has a center of curvature located approximately on  
a centerline of tubing section.
- 5
6. The device of claim 5 wherein said part spherical section  
subtends an arc of between about 30° and 60° in a vertical plane.
- 7.
- 10 The device of claim 1 wherein said connector may be tightened  
onto said coupler portions, said connector acting on said seal to form a leak
- Sub A2*
- 15 resistant joint.
8. The device of claims 1 or 2 wherein said seal is in the form of  
a ring which is generally wedge shaped in cross section and which has an  
inner seal surface, an outer seal surface and a bottom thrust face.
- 9.
- 15 The device of claim 8 wherein said outer seal surface is  
generally conical.
- 20 10. The device of claim 8 wherein said inner seal surface is  
sufficiently compressible to become part spherical.
11. The device of claim 8 wherein said bottom thrust face is  
generally planar.
- 25
12. The device of claim 8 wherein said seal is molded from a  
plastic material.
- 13.
- 30 The device of claim 8 wherein said seal is formed from a  
material which is at least partially compressible to form a liquid tight seal.

14. The device of claim 12 wherein said seal is made from molded low density polyethylene.
15. The device of claim 1 wherein said first connector portion and said second connector portion define a generally wedge shaped gap therebetween and said seal is sized and shaped to be received in said wedge shaped gap.
16. The device of claim 15 wherein said connector is threaded onto one of said first and second connecting portions and includes a rim, said rim comprising a thrust surface for thrusting said seal into said wedge shaped gap.
17. A device for plumbing drainage systems, said device comprising:  
a first tubing element having an attachment bell at one end and a first coupler portion at the other end;  
a second tubing element having an attachment bell at one end and a second coupler portion at the other end, at least one of said first and second tubing elements being generally U-shaped and sized and shaped to trap water therein;  
wherein said first and second coupler portions are sized and shaped to permit said first and second coupler portions to be snapped together over a range of angles to form a leak resistant joint.
18. A device as claimed in claim 1 wherein one of said first and second coupler portions is a female part having a part spherical inner surface, and the other of said coupler portions is a male part having a part spherical outer surface.

*Add by*